

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants : Noriyuki Kanno et al.
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Examiner : Beauchaine, Mark J.
Docket No. : 05-212
Customer No. : 34704

Appeal Brief

Sir:

This brief is submitted in support of a Notice of Appeal which was filed on January 26, 2009.

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(i) Real party in interest - The real party in interest in this appeal is the assignee of record, Japan Cash Machine, Co.Ltd.

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(ii) Related appeals and interferences - There are no known related appeals or interferences.

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(iii) Status of Claims - The application currently contains 22-29 which are rejected and on appeal. Claims 1-21 have been cancelled.

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(iv) Status of Amendments - There were no amendments filed after the final rejection from which appeal is taken.

Thus, the claims are as pending in the response filed August 18, 2008, and also as shown in the following claims appendix.

(v) Summary of claimed subject matter - Claim 22 is the sole independent claim pending and on appeal, and is set forth below with reference to the drawings and specification as required.

Claim 22 calls for a device for discriminating valuable papers comprising:

a conveyer (3), Figure 1 for example, and specification page 6, lines 12-14, for transporting a valuable paper inserted from an inlet (33) along a passageway (34) to a stand-by position (36) of the passageway (34) See for example Figure 12 and specification page 6, lines 13-15;

a validation sensor (4) for detecting an optical or a magnetic pattern of the paper moving through the passageway (34) to produce detection signals See Figure 1 and specification page 6, lines 15-17;

a stacking device (41) for stowing the paper in the stand-by position (36) into an accumulation chamber (44) See Figure 12 and specification page 6, lines 17-19;

a trigger element (6) connected to a battery (1) and turned on by an opening operation of a cover (28) mounted adjacent to the inlet (33) See figures 1, 2 and 4 and specification page 10, lines 19-23 for example;

a drive controller (2) for receiving detection signals from the validation sensor (4), validating the authenticity of the paper and providing the conveyer (3) and stacking device (41) with drive signals See Figure 1 and specification page 6, lines 19-21, said drive controller comprising a timer for counting time elapse since the trigger element is turned on, see specification page 11, lines 7-9;

a self-holding circuit (5) connected between the battery (1) and drive controller (2) and switched from an inactive to an active condition when the trigger element is turned on to supply electric power from the battery (1) through the self-holding circuit (5) to the drive controller(2), validation sensor (4) and conveyer (3) See figure 1, and specification page 6, lines 22-26;

a shutoff circuit (7) which has a control terminal for receiving a control signal from the drive controller (2) to switch the self-holding circuit (5) in the active to the inactive condition and thereby interrupt the power supply through the self-holding circuit, See Figure 1 and specification page 7, lines 2-4; and

a stack sensor (42) for detecting stowage of the paper into the accumulation chamber (44) in the stacking device to produce a detection signal to the drive controller, See Figure 1 and specification page 9, lines 9-11;

wherein the drive controller is further operated to:

i) rotate the conveyer in the forward direction to transport the paper to the stand-by position, when the drive controller decides the paper inserted from the inlet is genuine, See specification page 12, lines 1-4;

ii) provide the control signal for the shutoff circuit to switch the self-holding circuit from the active to the inactive condition, when the drive controller receives a detection signal from the stack sensor, See specification page 12, lines 16-18;

iii) rotate the conveyer in the adverse direction to return the paper to the inlet, when the drive controller does not decide the paper inserted from the inlet is genuine, See specification page 12, lines 11-13; and

iv) switch the self-holding circuit from the active to the inactive condition, when the timer has counted a predetermined period of time, see specification page 12, lines 18-21.

(vi) Grounds of rejection to be reviewed on appeal

There is a single ground of rejection to be reviewed on appeal, and that is the rejection of claims 22-29 as obvious based upon a combination of Mori in view of Springer in view of Post in view of Hirakura.

(vii) Argument

Claim 22 calls for a number of features which are all absent from the art of record. Specifically, when trigger element (6) is turned on upon opening operation of a cover (28) mounted adjacent to inlet (33), self-holding circuit (5) is switched from an inactive to an active condition to supply electric power from battery (1) through self-holding circuit (5) to drive controller (2), validation sensor (4) and conveyer (3), and at the same time, drive controller (2) causes a timer to start counting time elapse since trigger element (6) is turned on.

Further, a stack sensor (42) detects stowage of a valuable paper into an accumulation chamber (44) in stacking device (41) to produce a detection signal to drive controller (2) which then provides a control terminal of shutoff circuit (7) with a control signal to switch self-holding circuit (5) from the active to the inactive condition to interrupt the power supply through self-holding circuit (5).

When drive controller (2) does not decide the paper inserted from inlet (33) is genuine, it rotates conveyer (3) in the adverse direction to return the paper to inlet (33) and then switches self-holding circuit (5) from the active to the inactive condition, when the timer has counted a predetermined period of time.

Accordingly, the present invention can effectively interrupt power source through self-holding circuit (5) when valuable paper is stowed into accumulation chamber (44) or when timer counts over a predetermined period of time after trigger element (6) is turned on to extremely reduce power consumption in the discriminating device for

power saving and increase in battery life in a place where no power can be supplied.

None of the art of record discloses or suggests this subject matter.

Post discloses an arrangement for a security module that switches a monitoring circuit 12 into a self-holding condition to keep lines 136 and 138 at a ground potential. As a result of this condition of monitoring circuit 12, an L-signal is applied from a microprocessor 120 into a line 164 via a decoupling diode 1262 which serves the purpose of lowering the power consumption in battery mode. See column 10, lines 7-43 of Post. Obviously, such a monitoring circuit 12 cannot be applied as a self-holding circuit (5) as in the present invention because it is to maintain selected lines at a ground potential, not at an active potential under certain conditions.

Mori discloses only a carrier switch SW1 for detecting overload of a motor M3 when it is maintained in the on state longer than a predetermined period of time set by a three second timer T. In Figure 6, a bill device 31 which comprises a bill discrimination means 33 for discriminating false and true bills inserted from a bill insertion slit 32; a temporary retention means 34 capable of temporarily retaining a plurality of true bills accepted by discrimination means 33; and a bill accumulator 35 for accumulating the retained bills. No power saving means is shown.

Hirakura demonstrates a copying machine which comprises a CPU 11, an operating switch 16, a counter circuit 12 and an automatic shutoff circuit 14 such that CPU 11 causes automatic shutoff circuit 14 to turn operate

switch 16 off when control circuit 12 has counted over a predetermined period of time.

Springer shows a toilet unit which comprises an electrical mercury switch 71 turned on by opening operation of a seat cover 32 as shown in Figure 3 to supply electric power to a fan 75 until seat cover 32 is returned to its closed position.

In the sole ground of rejection, the Examiner argues that Springer can readily be combined with the other art of record to meet the claimed subject matter. In order to do this, there must be some logical rationale to combine the prior art teachings. It is submitted that there is clearly no such prior art teachings.

When the connection between Mori and Springer was challenged during prosecution of this application, the Examiner held that both Mori and Springer are capable of processing both papers of value and non-valuable papers. Incredibly, the Examiner equates bills processed by Mori with toilet waste paper "processed" by Springer and concludes that a person skilled in the art would consult Springer for teachings relevant to Mori and/or the present invention. This holding is untenable and reversal of the rejection is appropriately respectfully requested.

This paper is accompanied by authorization to charge the fee for filing an appeal brief to a deposit account. It is believed that no other fee is due in connection with this paper. If, however, any such fee or fee deficiency is due, please charge same to Deposit Account 02-0184.

Respectfully submitted,
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Claims Appendix

1-21. (Cancelled)

22. (Previously presented) A device for discriminating valuable papers comprising:

a conveyer for transporting a valuable paper inserted from an inlet along a passageway to a stand-by position of the passageway;

a validation sensor for detecting an optical or a magnetic pattern of the paper moving through the passageway to produce detection signals;

a stacking device for stowing the paper in the stand-by position into an accumulation chamber;

a trigger element connected to a battery and turned on by an opening operation of a cover mounted adjacent to the inlet;

a drive controller for receiving detection signals from the validation sensor, validating the authenticity of the paper and providing the conveyer and stacking device with drive signals, said drive controller comprising a timer for counting time elapse since the trigger element is turned on;

a self-holding circuit connected between the battery and drive controller and switched from an inactive to an active condition when the trigger element is turned on to supply electric power from the battery through the self-holding circuit to the drive controller, validation sensor and conveyer;

a shutoff circuit which has a control terminal for receiving a control signal from the drive controller to switch the self-holding circuit in the active to the

inactive condition and thereby interrupt the power supply through the self-holding circuit; and

a stack sensor for detecting stowage of the paper into the accumulation chamber in the stacking device to produce a detection signal to the drive controller;

wherein the drive controller is further operated to:

i) rotate the conveyer in the forward direction to transport the paper to the stand-by position, when the drive controller decides the paper inserted from the inlet is genuine;

ii) provide the control signal for the shutoff circuit to switch the self-holding circuit from the active to the inactive condition, when the drive controller receives a detection signal from the stack sensor;

iii) rotate the conveyer in the adverse direction to return the paper to the inlet, when the drive controller does not decide the paper inserted from the inlet is genuine; and

iv) switch the self-holding circuit from the active to the inactive condition, when the timer has counted a predetermined period of time.

23. (Previously presented) The device of claim 22, further comprising:

an inlet sensor for detecting insertion of the paper, wherein electric power is supplied to the inlet sensor and drive controller after the self-holding circuit is switched to the active condition; and wherein the drive controller drives the conveyer to transport the paper along the passageway after the self-holding circuit is switched to the active condition.

24. (Previously presented) The device of claim 22, wherein the self-holding circuit comprises:

a first switching element connected in series between the battery and drive controller and in parallel to the trigger element; and

a second switching element connected to a control terminal of the first switching element;

wherein a control terminal of the second switching element is connected to the trigger element and shutoff circuit.

25. (Previously presented) The device of claim 22, wherein the self-holding circuit comprises a thyristor; the trigger element is connected to a gate terminal of the thyristor; and the shutoff circuit is connected to two main terminals of the thyristor.

26. (Previously presented) The device of claim 22, wherein the trigger element comprises an automatic resetting switch or infra-red ray sensor for detecting a human body.

27. (Previously presented) The device of claim 22, wherein the battery can be electrically charged by electric current supplied through outer terminals and a converter connected to an AC power source.

28. (Previously presented) The device of claim 22, wherein the trigger element comprises a pulse generator for producing a pulse to switch the self-holding circuit from the inactive to the active condition when the trigger element is turned on.

29. (Previously presented) The device of claim 22, wherein there is no power consumption except dark current when the trigger element is in the off condition.

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Evidence Appendix - None

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Related Proceedings Appendix - None